

To:  
Patrick.L.Marchio@wv.gov, Gregory.w.young@wv.gov,  
Cc:  
Charlotte.j.Billingsley@wv.gov, Tom.I.Ong@wv.gov, Robin  
Costas/ESC/R3/USEPA/US, George Long/ESC/R3/USEPA/US, WandaF  
Johnson/R3/USEPA/US, William Arguto/R3/USEPA/US, Cynthia  
Caporale/ESC/R3/USEPA/US,  
Bcc:  
  
Subject:  
Interim SDWA Certification for metals by EPA 200.8

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Thanks Greg Young and Patrick Marchio for your hard work. The results for the Proficiency Testing Study 090210B and initial demonstration of accuracy and precision and method detection limits were excellent. Please respond to the items below directly in the E-mail (underline your responses after the questions/issues) and we should be able to close this out and issue a new certificate quickly.

JoeS, RobinC, GeorgeL

W.VA SOP:

- 1). 7.1.8 What is the reason for adding the Internal Standard manually as opposed to having it added thru the peristaltic pump automatically?
- 2). 7.2.3.2 This section refers to pipetting cal std #4 (7.2.3.4). The section reference is incorrect needs to be 7.2.3.5.
- 3). 7.2.5 It is not clear regarding the 4.95mL volume if 5 uL of internal standard are being added to bring it up to 5 ml?
- 4). 10.1.5.1 It is not appropriate to call the results of a filtered-digested sample "dissolved metals". The term is usually reserved for a sample that is filtered within 15 minutes of collection and before digestion. If there significant solids after digestion, then maybe the sample should have been digested as a solid?
- 5). 11.2.2 Why is this referring to section 9.6? The chloride interference can be a problem for V also. Bromine can be a very significant interference for Se (which then impacts As because of the correction equation). This should be monitored for all samples, especially drinking waters. It is also a good idea to monitor C, Kr, and Cl so you can watch for possible contamination and interferences.
- 6). The SOP should list the source of the QC check acceptance criteria. These are mostly from EPA 200.8 but as the laboratory has additional checks
- 7). The SOP should include sections of hazardous waste and pollution prevention.
- 8). The SOP should list the logbooks that are maintained and include example copies of standardized notebook/bench sheet templates.
- 9). Section 8.3 (MDLs) needs to specify that the achieved MDL must be less than the drinking water MCL and/or action levels.

10). Section 8.5 on IDP indicates an acceptance criteria of <20%. The provided summary sheets for the IDP indicate acceptance criteria of <10% and these should be consistent.

General Suggestions:

The routine isotopes are listed in the SOP (Appendix B). It is very helpful to make them obvious on the data report.

DOC/MDL/PT Studies:

- 1). Run logs must be routinely output and stored with the data as part of the analytical records for a given analytical case. A notebook is suggested to store the run logs across all cases. This notebook should be
- 2). Records must be maintained of the preparation of routine calibration standards. The "Metals Standards and Reagent Tracking Log" could be used to record/document the necessary information.
- 3). IPA (DOC). The summary table has a wrong value recorded for Sb (123) in replicated 2. Also the Pb results in the MDL study for replicate 5 and 7 are slightly different than the raw data printouts (1.037 versus printout 1.034 and 1.026 versus printout 1.024. The PT result for Se was acceptable but was not the result for a validated mass (see suggestion above about data report). The associated data records need to be corrected/annotated, etc.
- 4). The IPA (DOC) and MDL summary tables include cobalt, silver and zinc. Cobalt was not on the submitted WS study (090210B) summary and is not within Region III's scope of SDWA certification. Also, the Email 12/30/2010 clarifying the interim certification included sodium. As this was not included in the IPA (DOC), MDL or PT study provided this analyte will not be given interim certification. To clarify of the requested analytes the following eleven can be given interim certification: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se and Tl. Please confirm this listing. Also, please confirm that you want this interim certification to augment your current certification for metals analyses and not replace it.